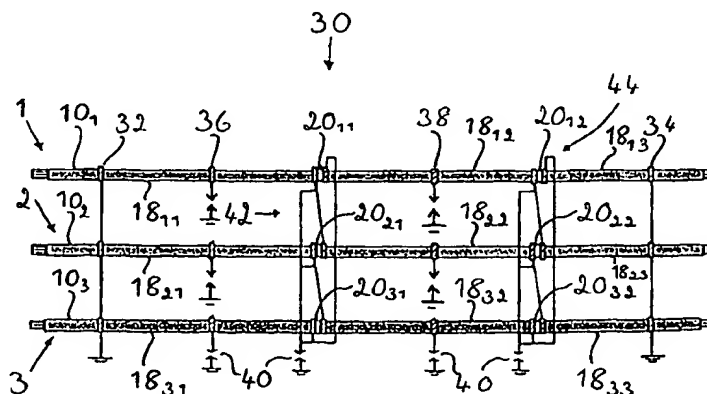




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H01F 27/34	A2	(11) International Publication Number: WO 99/17312 (43) International Publication Date: 8 April 1999 (08.04.99)
(21) International Application Number: PCT/SE98/01749 (22) International Filing Date: 29 September 1998 (29.09.98) (30) Priority Data: 9703563-8 <i>30 September 1997 (30.09.97) SE</i> (71) Applicant (for all designated States except US): ASEA BROWN BOVERI AB [SE/SE]; S-721 83 Västerås (SE). (72) Inventors; and (75) Inventors/Applicants (for US only): MING, Li [SE/SE]; Högbyskogsväg 1, S-723 41 Västerås (SE). LEIJON, Mats [SE/SE]; Hyvlargatan 5, S-723 35 Västerås (SE). LIU, Rongsheng [CN/SE]; Bangatan 1F, S-722 28 Västerås (SE). JAKSTS, Albert [CA/SE]; Ekorrvägen 13, S-722 43 Västerås (SE). (74) Agent: ASKERBERG, Fredrik; L.A. Groth & Co. KB, P.O. Box 6107, S-102 32 Stockholm (SE).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, ES, FI, FI (Utility model), GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: POWER TRANSFORMER/REACTOR AND A METHOD OF ADAPTING A HIGH VOLTAGE CABLE



(57) Abstract

The present invention refers to a power transformer/reactor comprising at least one winding (1, 2, 3). The winding/windings (1, 2, 3) are manufactured with a high voltage cable (10), comprising an electric conductor, around the conductor there being arranged a first semiconducting layer (14), around the first semiconducting layer (14) there being arranged a first insulating layer (16) and around the first insulating layer (16) there being arranged a second semiconducting layer (18). The second semiconducting layer (18) is directly earthed (32, 34) at n points of each winding (1, 2, 3) wherein n is an integral number and $n \geq 2$, and whereby two (32, 34) of said n directly earthed points are arranged at or in the vicinity of both ends of each winding (1, 2, 3) and the electric contact is interrupted (20) $2(n-1)$ number of times between both ends in the semiconducting layer (18). At each said interruption (20) there is arranged a means (24, 26) comprising a second insulating layer (24) and third semiconducting layer (26) in order to reduce the amplification of electric field strength at said interruption (20). The second semiconducting layer (18) of different phases (1, 2, 3) at each said interruption (20) is earthed in a cross-connected manner (42, 44). Besides, at least one point (36, 38) between both ends is indirectly earthed.